

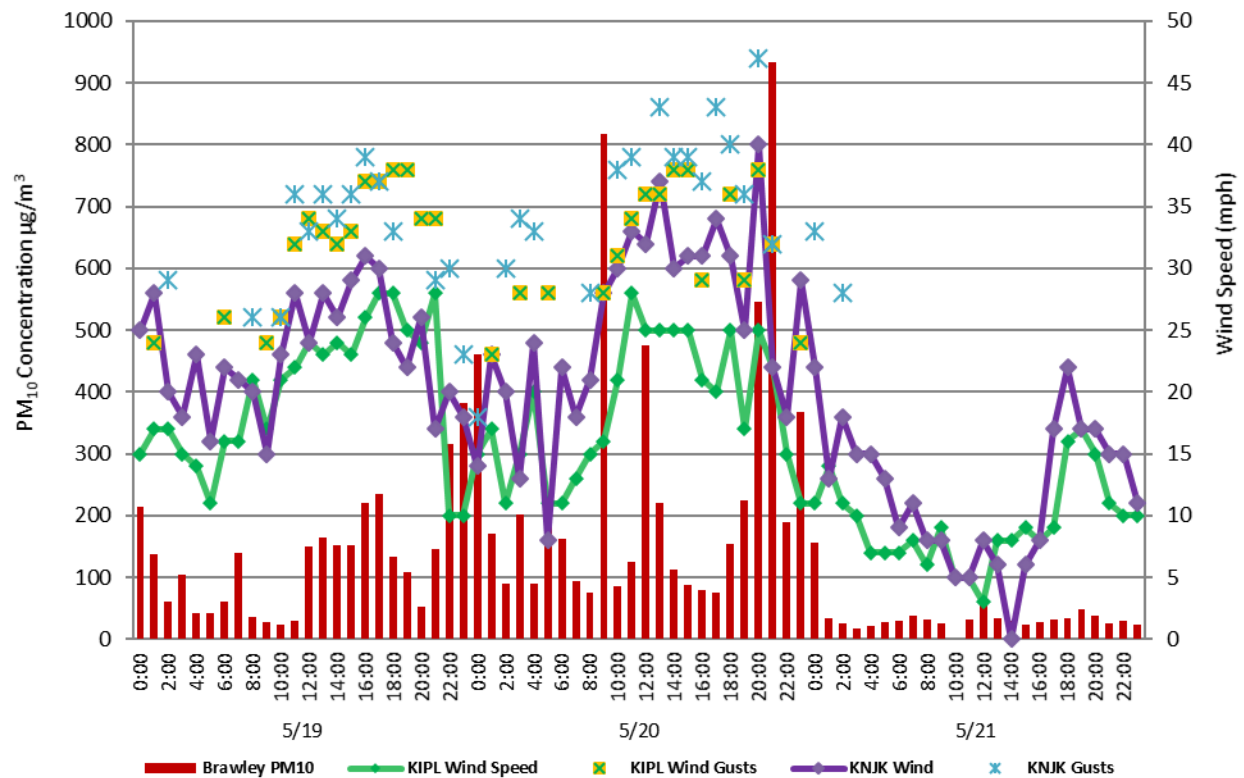
## Appendix C

### Correlated PM<sub>10</sub> Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds<sup>1</sup> and PM<sub>10</sub> concentrations at select monitoring sites within the Salton Sea Air Basin on May 20, 2014. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

#### IMPERIAL COUNTY SELECT SITES (Figures C-1 to C-4)

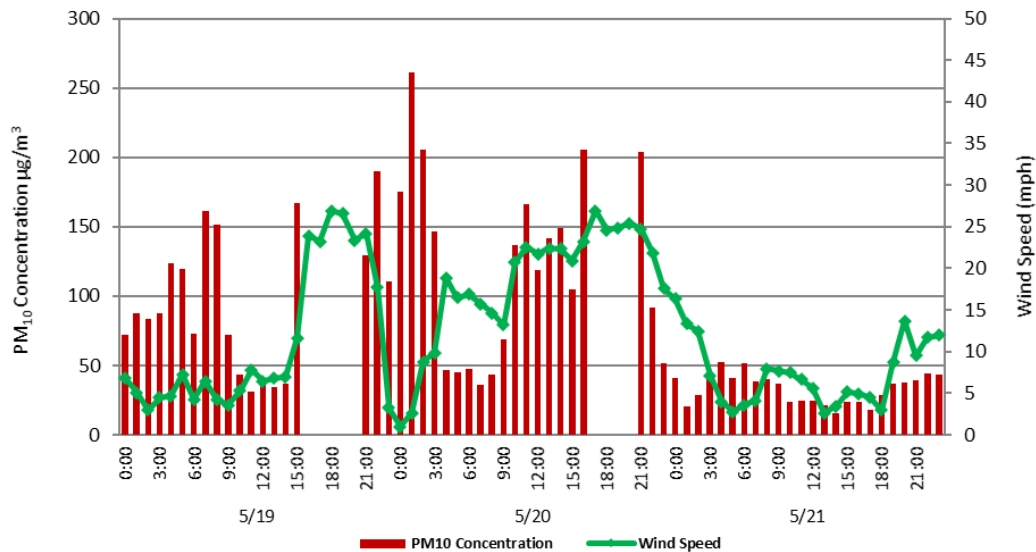
**FIGURE C-1  
BRAWLEY PM<sub>10</sub> CONCENTRATION & WIND SPEED**



**Fig C-1:** This graph combines the wind speeds and gusts of upstream sites from the Fish Creek Mountains, Sunrise-Ocotillo, El Centro NAF, and Imperial County Airport. Gusts and winds were strongest on May 20, 2014 when Brawley's hourly PM<sub>10</sub> concentrations were at their greatest. Air quality data is from the EPA's AQS data bank. Wind data is from the NCEI's QCLCD system

<sup>1</sup> National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); <http://w1.weather.gov/glossary/index.php?letter=w>

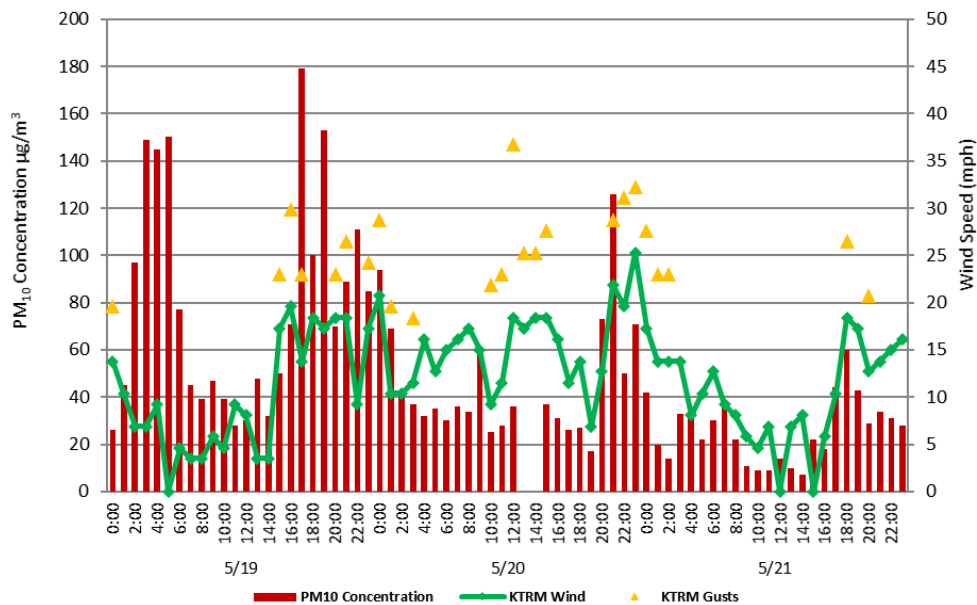
**FIGURE C-2**  
**NILAND PM<sub>10</sub> CONCENTRATION & WIND SPEED**



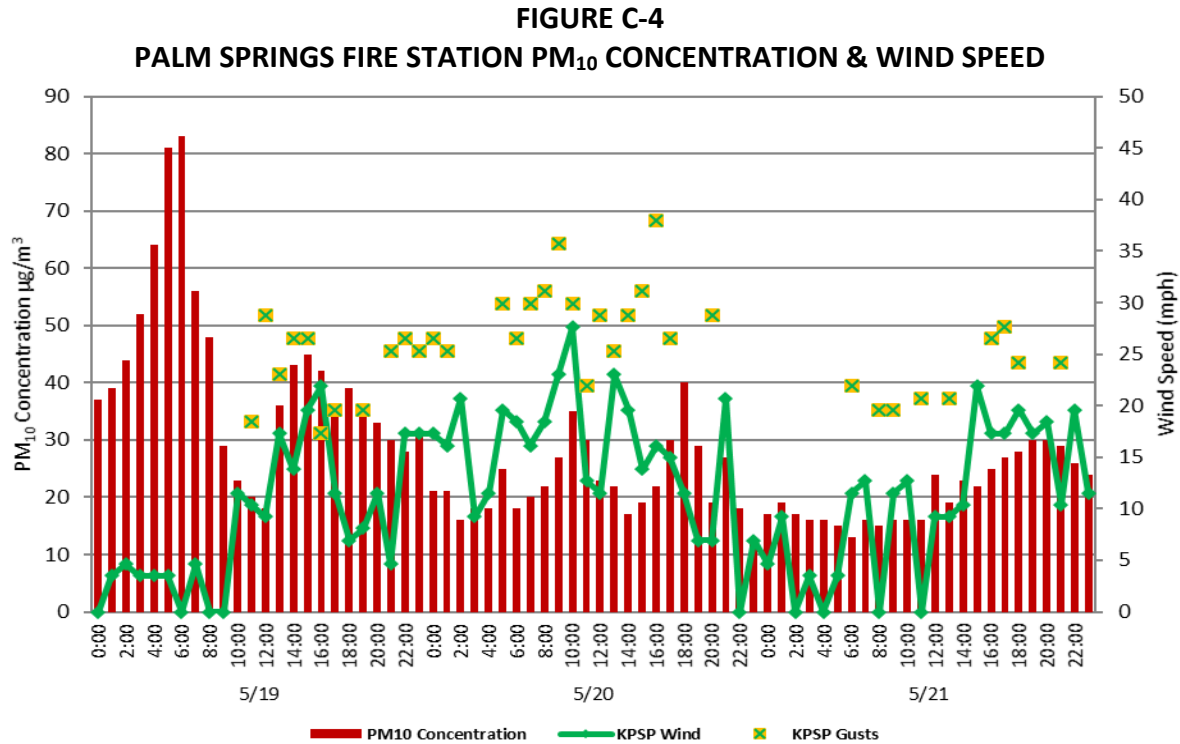
**Fig C-2:** Niland (English Rd) station experienced elevated winds which in turned led to increased PM<sub>10</sub> concentrations, although not as dramatic as at Brawley. Air quality and wind data is from the EPA's AQS data bank

#### RIVERSIDE COUNTY MONITORING SITES

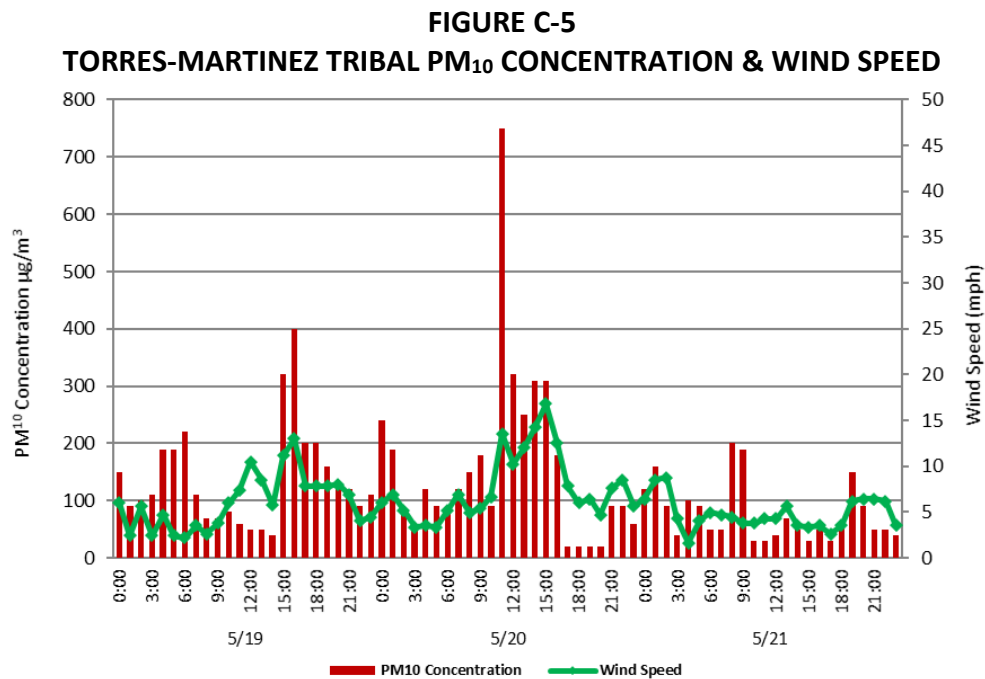
**FIGURE C-3**  
**INDIO (JACKSON ST) PM<sub>10</sub> CONCENTRATION & WIND SPEED**



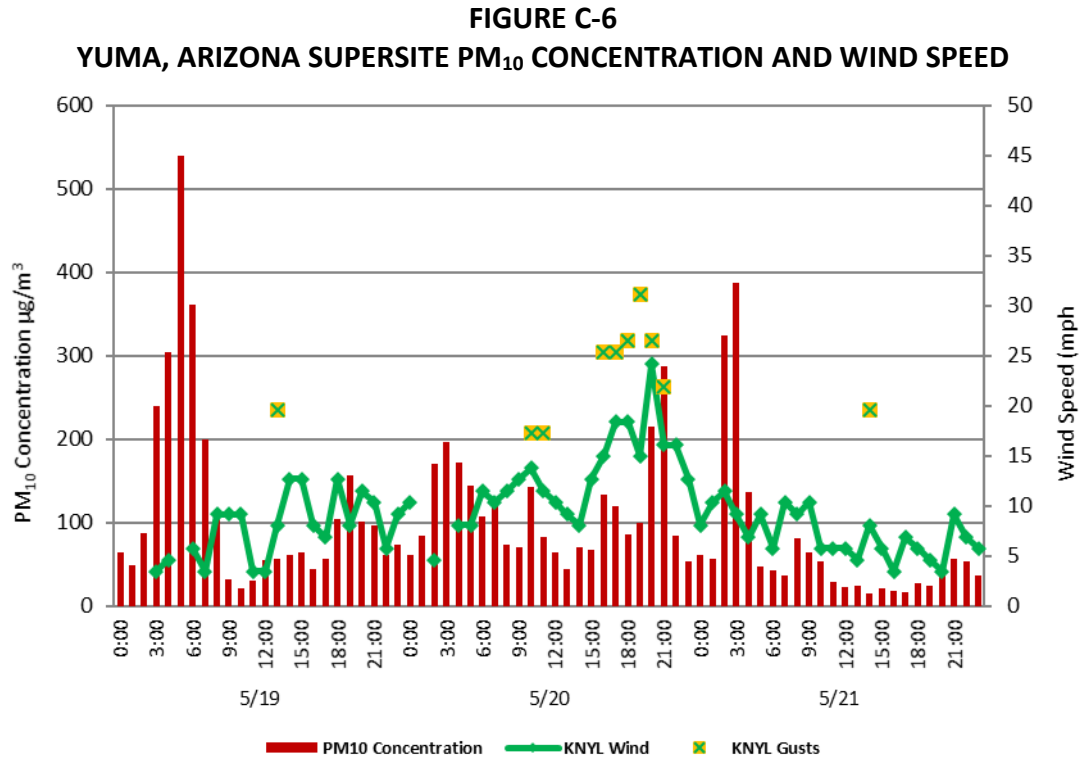
**Fig C-3:** Indio saw increases in hourly PM<sub>10</sub> in response to elevated winds. Air quality data is from the EPA's AQS data bank. Wind data is from University of Utah's MesoWest



**Fig C-4:** P.S. Fire Station saw increases in hourly PM<sub>10</sub> in response to elevated winds. Air quality data is from the EPA's AQS data bank. Wind data is from MesoWest



**Fig C-5:** T-M Tribal saw increases in hourly PM<sub>10</sub> in response to elevated winds. Air quality and wind data is from the EPA's AQS data bank



**Fig C-6:** The Yuma Supersite in Yuma, Arizona, located southeast of Imperial County saw corresponding increases in particulate matter as wind speed increased during May 20, 2014, demonstrating the regional impact of the wind event on May 20, 2014. Air quality data is from the EPA's AQS data bank. Wind data is from MesoWest